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ABSTRACT

This is an evaluation of a Title VII bilingual program that was conducted at Louis D. Brandeis High School in New York City in 1979-1980 to serve Spanish speaking students. The evaluation provides a demographic analysis of the schools's environment, information on student characteristics, and a program description. Instructional components of the program discussed include: (1) programming and mainstreaming; (2) funding; (3) English as a second language; (4) Spanish language arts; and (5) content area offerings. Non-instructional components reviewed include: (1) curriculum and materials development; (2) supportive services; (3) staff characteristics and development; (4) parental and community involvement and (5) affective domain. Tables show students' performance in mathematics, science, social studies, native language arts, oral language ability, and native language reading. Attendance figures are presented and conclusions and recommendations are offered. (APM)

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FINAL EVALUATION REPORT

ESEA Title VII

Grant Number: G007804523

Project Number: 5001-42-07625

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LOUIS D. BRANDEIS HIGH SCHOOL

BILINGUAL PROGRAM

1979-1980

Principal: Mr. Murry A. Cohn

Director: Mr. Frank Friuli

Prepared By The

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ED0 21447

TABLE OF CONTENTS

		PAGE
I.	PROGRAM DESCRIPTION	1
	A. Demographic Context	1
	B. Student Characteristics	3
	C. History and Structure	8
II.	INSTRUCTIONAL COMPONENT	12
	A. Entry, Programming and Mainstreaming	12
	B. Funding of Instructional Component	16
	C. English as a Second Language	16
	D. Spanish Language Arts	18
	E. Content Area	19
III.	NON-INSTRUCTIONAL COMPONENT	22
	A. Curriculum and Materials Development	23
	B. Supportive Services	24
	C. Staff Characteristics/Development	27
	D. Parental and Community Involvement	30
IV.	AFFECTIVE DOMAIN	33
V.	FINDINGS	36
VI.	CONCLUSIONS AND RECOMMENDATIONS	57
VII.	APPENDIX	61

LIST OF TABLES
(continued)

		PAGE
TABLE XVIII	Oral Language Ability (Non 720 Designated Students Rated E or F on Pre-Test)	45
TABLE XIX	Oral Language Ability (720 Designated Students Rated E or F on Pre-Test)	46
TABLE XX	Native Language Reading Achievement	47
TABLE XXI	Mathematics Performance (Academic Level Courses)	48
TABLE XXII	Mathematics Performance (General Level Courses)	49
TABLE XXIII	Science Performance (Academic Level Courses)	50
TABLE XXIV	Science Performance (General Level Courses)	51
TABLE XXV	Social Studies Performance (Academic Level Courses)	52
TABLE XXVI	Social Studies Performance (General Level Courses)	53
TABLE XXVII	Native Language Arts Performance (Academic Level Courses)	54
TABLE XXVIII	Native Language Arts Performance (General Level Courses)	55
TABLE XXIX	Attendance Rates	56

LOUIS D. BRANDEIS HIGH SCHOOL BILINGUAL PROGRAM

Location:	West 84th Street, New York City
Year of Operation:	1979-1980, Second Year of Funding
Target Language:	Spanish
Number of Participants:	700
Principal:	Murray A. Cohn
Project Director:	Frank Friuli

I. PROGRAM DESCRIPTION

A. Demographic Context

Louis D. Brandeis High School is located on the mid-west side of Manhattan between Columbus and Amsterdam Avenues. The building, a well-maintained four-story brick structure, appears out of place in its immediate surroundings, a stretch of rundown buildings, some of them unoccupied. But the neighborhood itself is one of immense diversity. (Brandies also operates an annex near Lincolin Center, but it is not used by the bilingual program.)

In the general vicinity of the school are many small food stores, fruit stands, antique shops, supermarkets, bodegas, florists, boutiques for clothing and gourmet food, dry cleaners, and a profusion of other businesses catering to the poor, the middle-class and the wealthy, all of whom live within several city blocks of Brandeis. To the west, Riverside Drive and West End Avenue are lined with still-elegant pre-war apartment buildings, many now cooperatives. To the east, Central Park West is comparably upscale, while Columbus Avenue is the site of a burgeoning middle-class, occupants of Mitchell Lama middle-income

cooperatives. Amsterdam Avenue and the side streets have a greater economic mix: single room occupancy hotels, tenements, and old apartment buildings, some still under rent control, as well as public housing projects and brownstones. The population of the neighborhood is as diverse ethnically as economically, but the immediate vicinity of Brandeis is largely Hispanic. The Brandeis neighborhood is a port-of-entry area for many newcomers to the U.S.

The general physical impression of the school is of a clean, well-run place. Corridors and classrooms are neat; the entrance hall displays student artwork and honors. Laboratories and lavatories are clean and well-maintained.

The atmosphere of the school is relaxed, yet orderly. There is little visible security, but students are seldom seen roaming the halls. The strictness of rules and high standards of student behavior are a source of pride to the students in the bilingual program. In some cases they choose Brandeis over more convenient high schools because academically and socially the school is seen as providing something to "live up to."

B. Student Characteristics

Students in the bilingual program are all Spanish-dominant and foreign-born. Some have arrived recently; others have been in this country for a year or more and enter from feeder intermediate or junior high schools in Harlem, El Barrio, the Upper East Side, Manhattan Valley and the lower west side of Manhattan. (Most of these areas are largely Hispanic and Black. Brandeis, with 2,773 students out of 3,334 receiving free lunches is categorized as a Title I school.)

The majority of the bilingual program students are from the Dominican Republic. Others have come from Ecuador and other Latin American countries; relatively few are from Puerto Rico. During 1979-80, 143 students were newly admitted to the school. Of them 122 were Spanish-speaking and qualified for Title VII funding.

TABLE I

Country of Origin of Students
Newly Admitted to Brandeis High School in 1979-80

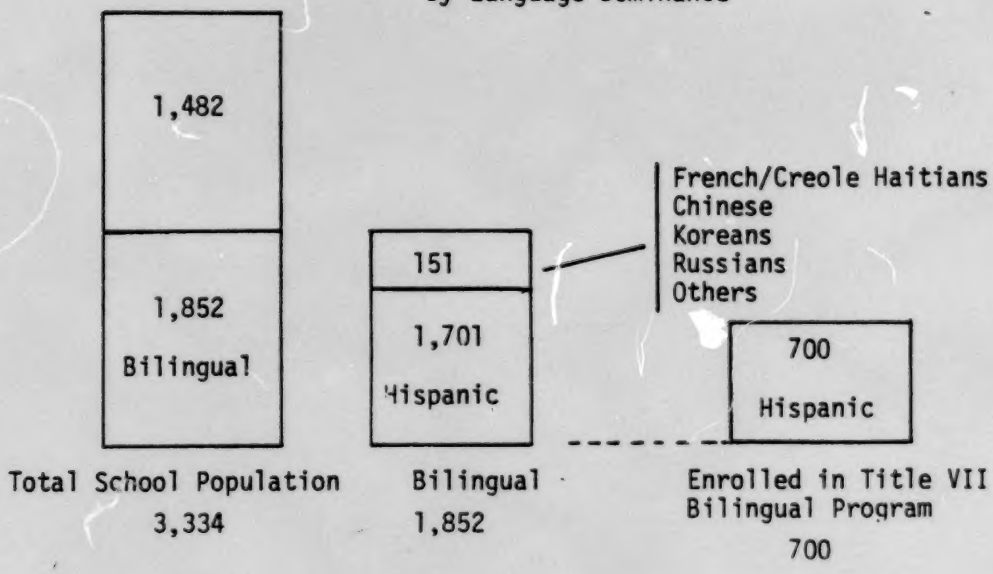
HISPANIC		NON-HISPANIC	
Dominican Republic	70	Haiti	12
Puerto Rico	24	Vietnam	3
Ecuador	12	Pakistan	2
Colombia	4	China	2
Nicaragua	3	Thailand	1
Costa Rica	2	Ghana	1
Honduras	2		
Mexico	2		
El Salvador	1		
Guatemala	1		
Panama	1		
Total:	122	Total:	21

Of the total enrollment of 3,334, 1,852 students (55.5%) are dominant in languages other than English. Of these, 1,701 or 51% of the school population, are Hispanic. While the total Brandeis High School population has decreased in the past year by 15% (634 students), the Hispanic population decreased by only 1.7% (32 students). The percentage of Hispanic students has risen from 47% to 51% in the same period.

TABLE II

Student Population

By Language Dominance



While the bilingual program is mandated to serve 550 LEP students, the number of students enrolled in the school who are in need of bilingual services far surpasses that figure. In 1979-1980, the program provided instructional and other services to 700 students.

Most bilingual program students have come to New York with one parent or other relative, who typically arrives with a quaranteed factory job. Usually that job is soon lost, particularly during this period of recession. Some subsequently find employment elsewhere: as domestics, or in a small business owned by a relative. Some run their own small businesses or stores, such as bodegas. Others remain umemployed.

Some students do not come with their immediate family, but are sent for the sake of education and opportunity to live with relatives who have previously emigrated. Very few students, possibly fewer than 10%, arrive with and live with both parents.

While this disruption of family life might seem to suggest emotional trauma and disorientation, the head grade advisor stressed that for the most part the students do not experience their life situations in this way. While there are some students whose families are refugees, the majority have relocated to improve their circumstances, and their upheavals should be seen in this context. The head grade advisor described the extended family network common in the cultures from which most program students come, which shapes their experience in and out of school. Students from such cultures, for example, will readily seek help from an aunt, sibling, or grandparent or perhaps a neighbor if a parent is unavailable, without feeling slighted or deprived. In school, the same student will consider more than one possibility for solving a problem, and will not generally be easily frustrated if the first solution fails or proves impracticable. The grade advisor said that flexibility in problem-solving is one of the rewarding aspects of her work with program students.

Both the grade advisor and the acting assistant principal mentioned other characteristics of students who come from extended-family settings. They tend to be less competitive than students from cultures where the nuclear family predominates; they don't view failure as humiliation. Generally speaking, they judge themselves by who they are rather than what they produce, and they expect others to do likewise. For example, when program students assemble materials to send to colleges, the college advisor or project director must advise them carefully about which teachers to approach for recommendations. A program student might otherwise request a reference from a teacher who has failed him/her in a course two or three times. It simply might not occur to the student that mere failure in classwork or exams would be a reason for an unfavorable recommendation. Self-esteem is not linked with work. Such actions may seem terribly naive to someone unfamiliar with value systems in the student's society of origin. The grade advisor mentioned that it is often difficult for teachers and other staff members to grasp these cultural differences.

This attitude might seem to suggest a lack of ambition on the part of the students, but the acting assistant principal explained that this is not the case. Indeed, many students (or their families) have emigrated to find opportunity, to get the education that holds the promise of success. But they may not recognize that securing that education is not an inevitable result of attending school.

The fact that there is little stigma about failure (in the individual or the family) may create some obstacles to learning, but at the same time it removes others. The acting assistant principal stated her conviction that a teacher badly serves a student by passing him/her despite

failure to master material, because "after all he came to class every day, how can I fail him," or "but she will be devasted if she fails." Precisely because of the cultural differences, the probability is that a student in the Brandeis program will not be devastated. Program teachers can, therefore, require students to repeat classes with little concern or guilt about undermining self-esteem. (See Conclusions.)

For the same reason, the program has been able to introduce streaming or tracking into its content area curriculum, with little or no apparent detriment to students' self-image.

Staff members indicated that there are distinctions among groups of students within the bilingual program. Those who are newly arrived in the U.S. have a wide range of skills in Spanish and various levels of preparedness. Typically they have had from four to eight years of schooling, which has not always been continous. These new arrivals tend to be enthusiastic, positive about themselves and their future, and proud of their national origin. Even those who are sometimes disruptive or mischievous will often, if asked, extend special consideration or help to a teacher or fellow student. They tend to be clannish, forming and maintaining social groups. The assistant principal suggested that these groups may be based on academic ability; the grade advisor added that a glance at the lunchroom indicates that such alliances are formed more on the basis of skin color than country of origin or any other single factor.

The other group of students in the program, those who enter Brandeis from feeder intermediate or junior high schools, have been in the U.S. for a year or more. They frequently have more difficulty adapting to

the program than those who come directly from abroad. Their problems may be academic, social, or both. They may have oral skills in two languages and be literate in neither. Even students who were enrolled in bilingual programs in the seventh or eighth grade have typically received ESL instruction, as well as content area classroom instruction in Spanish, but have used English textbooks in content areas. Their ability to read or write Spanish has therefore been limited.

Students' abilities, once in the program, also vary. Many do well; some have graduated from Brandeis at the head of their class. A number of students have gone on to college and/or employment. (See also Affective Domain.) Others have severe learning problems. Some students have failed the first level of ESL two or three times, although they have applied themselves to their work. These students have been recommended for assessment by the Committee on the Handicapped, but that process has been slow. (See Recommendations.)

Program students tend to have a broad range of emotional and practical needs as well. Some of these are described in the section on Supportive Services.

C. Program History and Structure

History. The bilingual program at Brandeis High School, now a mature, well developed program, has grown steadily since its inception in 1972. For the first five years of its operation, the program was administered by one project director, whose outlook and vision shaped both the goals and the implementation of the instructional and non-instructional components. Her leadership had a decisive impact on the program staff. Then in the two year period (September 1978 through

June 1979) that followed, two different project directors administered the program.

In 1977 the original project director was apppointed acting assistant principal. (She later became assistant principal, and subsequently principal of another New York City high school.) A new project director, who had been teaching bilingual science in the program, was appointed for the 1977-1978 school year; but because she could not immediately be replaced in the classroom, she continued teaching during the fall semester and at the same time had some input into the grant that was then being prepared for the three-year period beginning in September 1978. During Fall 1977, the original project director continued to administer the program in her capacity as acting assistant principal.

In February 1978, the second project director assumed her administrative responsibilities, working closely with her predecessor who remained acting assistant principal for the duration of the year.

In September 1979, the second project director became acting assistant principal, responsible for the Department of Foreign Languages and Bilingual Education, and a third project director was appointed. He retained that position throughout the 1979-1980 school year.

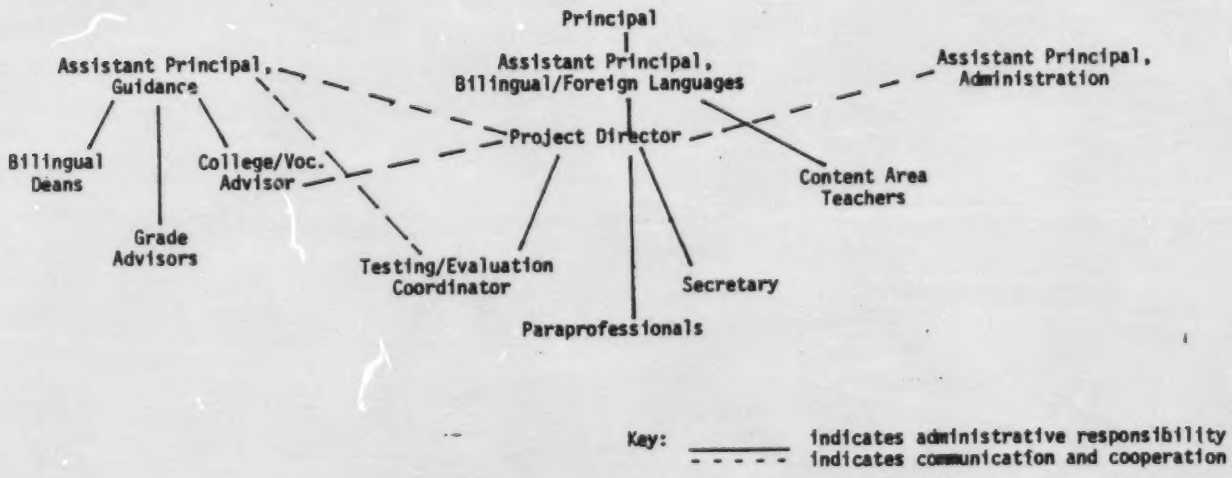
This transitional period taxed the energies of the staff. There was close communication among the three project directors; their basic approaches to bilingual education were consonant. The shifts in roles had some positive effects: key members of the staff gained experience in several facets of program administration, and now know the program inside out. But at the same time, the abrupt changes caused some confusion and frustration. The individuals who have been responsible

for implementing the program during the current three-year cycle (of which 1979-1980 was the second year) were not primarily responsible for formulating either the project or its evaluation design. While intense efforts were made to effect a smooth transition, a certain amount of upheaval was inevitable. Good communication among the staff members, and cooperative working relationships, enabled the program to function effectively during the transition, and in fact, to benefit from the changes. The evaluator's impression was that even in the face of administrative difficulties, the staff's attention was directed to the needs of the students.

Structure. The bilingual program at Brandeis is part of the Department of Foreign Languages and Bilingual Education. An (acting) assistant principal, supported by tax levy funds, heads the department. Table III represents the administrative organization of the Brandeis bilingual program within the administrative organization of the school.

TABLE III

Program Administration



A total of 25 teachers, 13 paraprofessionals and 15 other non-instructional personnel constitute the staff of the bilingual program. Of these, the project director, testing and evaluation coordinator, college/vocational advisor, secretary, and six paraprofessionals are supported by Title VII funds. Other sources of funding for services delivered to bilingual students include Chapter 720, Tax Levy, PSEN and Title I.

II. INSTRUCTIONAL COMPONENT

A. Entry, Programming, and Mainstreaming

At the time of registration at Brandeis, the Language Assessment Battery (LAB) is administered to those students who are identified as possibly of limited English proficiency. The array of services encompassed in the Title VII program is offered to Spanish-dominant students who score at or below the 21st percentile.

Once a student is deemed eligible for bilingual services, his/her program is assembled on an individual basis. The student's record and preparedness, and the recommendation of the bilingual grade advisor and/or other staff members, determine course selection. Each program is geared to high school graduation requirements. Parents are encouraged to participate in this process and are informed of the student's final program, as well as of any changes made during the school year.

Each student's program includes: ESL instruction; Native Language Arts (Spanish); content area courses; and mandated courses in the mainstream.

The grade advisor, in consultation with other staff members, assigns students to an appropriate level of ESL and NLA instruction, and to the content area courses which will best meet his/her needs. In each content area, students are placed, on the basis of ability (particularly reading skills), in either "general" track or "academic" track classes. The difference between these tracks is elaborated in the section on content area instruction. In this area as well, programming is done on an individual basis. A student

may be assigned to an "academic" section of one course and a "general" track of another. If a student assigned to one track finds the work too difficult, or not so efficiently challenging, a change can be made earlier in the term.

Exit from the program is technically founded on the same criterion as entry: the student's score on the LAB. That battery of examinations is administered at the beginning of each school year. A score above the 21st percentile allows a student to take courses in the mainstream.

The bilingual program at Brandeis is transitional in emphasis. At the same time, the staff resists precipitous mainstreaming; that is, they prefer not to rush students, who may just be acquiring confidence, into classes where instruction is exclusively in English. Mainstreaming is therefore a gradual process; decisions are made for each student in each subject.

One staff member expressed reluctance to mainstream a student who has achieved a solid record in the bilingual program. She pointed out that any student who is mainstreamed will, at least initially, have a drop in grades. The fact that the student can no longer rely on the native language to grasp, or to demonstrate a grasp of, new concepts, compounded by the difficult social adjustment, will result in this drop in grades. Since most program students plan to apply to college, teachers may worry about mainstreaming a student who is earning scores in the 90's and therefore has a high standing in the graduating class, but who might receive grades in the 70's in the mainstream.

In the 1979-80 school year, program data indicate that 175 students (25% of the target population) were mainstreamed. Of these, 60 students (34%) were fully mainstreamed, and 115 (66%) were partially mainstreamed. Those numbers must be understood in the context of the instructional program.

For example, the process of transition to greater usage of English is effected, to some degree, within the bilingual program. Some bilingual content area courses use both English and Spanish texts. Some "academic" track classes, such as Academic Biology, require a third semester which is taught in English.

Every student takes several mandated courses in the mainstream. American History II, for example, is offered only in English. All students take such mandated courses as physical education, health, and art. They may also take electives in the mainstream.

Because the curricula of content area courses in the mainstream and in the program are parallel, there is considerable flexibility in mainstreaming. That is, a student who is mainstreamed may return to the comparable bilingual course, or vice versa.

In general, both students and parents have been amenable to mainstreaming. Parents are most often involved in the process when problems or conflicts occur, such as when a mainstreamed student returns to the bilingual program, or when a student who is thought to be ready to work in the mainstream is reluctant to make that transition.

Because the cultural barrier is often more steep than the linguistic barrier, students might be able to make the transition more smoothly if

there were a program of cultural enhancement to narrow the gap between the bilingual student and the students he/she will meet in the mainstream. (See Recommendations.)

Any student who has been enrolled in the bilingual program may receive services (particularly supportive services or extra-curricular activities) from the program. Mainstreamed students generally seek the counsel of the college/vocational advisor when they are considering or submitting applications to college.

In these ways, students maintain contact with the program; this contact may even continue on an informal basis after graduation. Several students who have enrolled in colleges in the CUNY or SUNY system, or in private institutions, have kept in close touch with members of the program staff.

Table IV summarizes the numbers of students leaving the program in 1979-1980.

TABLE IV

Students Leaving Program, 1979-1980

Fully mainstreamed	60
Discharged to alternate programs	12
Graduated	16
Transferred to other schools	40
Returned to country of origin	70
Removed from program by parental option	6
Married, left school	7
Discharged, not found	60

B. Funding of Instructional Component

Bilingual program staff provide instruction in English as a Second Language (ESL), Native Language Arts (NLA), and the content areas of social studies, mathematics, and science. Table V indicates the funding source and number of personnel involved in each of these subjects.

TABLE V

Instructional Component by Funding Source

Instructional Component	Funding Source(s)	Number of Personnel	
		Teachers	Paras
E.S.L.	Title 1	11	6
	PSEN	3	-
	Tax Levy	2	-
	Title VII	-	5
Native Language	Chap. 720	2	2
	Tax Levy	4	-
Mathematics	Chap. 720	1	-
	201/202	4	-
	Title VII	-	1
Social Studies	Tax Levy	6	-
	Title VII	-	1
Science	Tax Levy	1	-
	201/202	2	-

C. English as a Second Language

Students are offered four levels of ESL. These courses range from basic instruction in ESL geared to newly arrived students, to transitional English which encompasses composition and literature. From the third level of ESL, students read materials concerning American history and culture, including articles from journals, magazines, and newspapers.

Students take English Language Reading (ELR) classes concurrently

with ESL. This instruction is also offered on four levels. A student may progress at different rates in the two courses, however. For example, a student who passes an ELR course, but has not finished the equivalent level course in ESL, may nevertheless take the next ELR course.

The methodology used in ESL instruction is eclectic, meeting the wide range of students' modalities of learning. The program also uses the ESL/NLA/MLA approach initiated by the New York City Board of Education--an approach which calls for techniques utilizing rhythm and music in teaching a second language. In addition, the basic syllabi or guidelines used in the ESL component follow the established objectives of the Criterion Reference English Syntax Test developed by the New York City Board of Education.

The following table indicates the classes in the area of ESL offered by the Brandeis bilingual program:

TABLE VI

English Language Component

of the Bilingual Program

Subject	Number of Classes
English as a Second Language (ESL) 1	4
ESL 2	6
ESL 3	7
ESL 4	1
5 Transitional Academic (TA)	2
5 Transitional General (TG)	2

6 Transitional Advanced (TA)	2
6 TA	5
English Language Reading (ELR)1	3
ELR 2	4
ELR 3	5
ELR 4	1

D. Spanish Language Arts

The classes offered in the area of Spanish Language Arts range from a basic review of Spanish grammar and composition to the study of Hispanic literature. This diversity is needed to meet the needs of those students who enroll in the program with different degrees of proficiency in their native language.

There are seven levels of instruction. Students attend classes which are 35 minutes long. A total of 6 teachers and two paraprofessionals are involved in the Spanish Language Arts component of the program. As in all program courses, teacher-developed curricular materials are used to a great extent, and are also available for dissemination to other programs.

The following table indicates the classes offered in Spanish language arts. Each class met five periods per week. The class register in each case was 25 - 30.

TABLE VII

Louis D. Brandeis High School

Spanish Language Arts Program

Subject	Number of Classes
NLA	1
Sp. 1S	3
Sp. 2S	10
Sp. 3S	4
Sp. 4S	3
Sp. 5S	1
Sp. 6S	2

E. Content Area

Table VIII shows the content area courses offered in Spanish. All courses are given for 5 periods per week. Instruction is exclusively in Spanish. The approximate class register of each course is 35.

TABLE VIII

Content Area Offerings of Bilingual Program (Overview)

Subject		Number of Classes
Social Studies:	Latin American History	2
	U.S. History	4
	Economics	3
	World History 1 & 2	6
Science:	General Science 1 & 2	5
	Academic Science 2	2
	Academic Biology 1, 2 & 3	4
	General Biology 1 & 2	4
Mathematics:	Algebra 1, 2 & 3	9
	Transitional Math. Acad.	2
	Geometry 1, 2 & 3	3
	General Math 1, 2 & 3	10
	Remedial Math 1 & 2	2

A special feature of the Brandeis program is the number of variety of content area offerings. Assigned on a course-by-course basis to general or academic tracks of some subjects, students may proceed at a pace which remains challenging yet allows mastery of the material. Some classes, such as geometry and academic biology, are given in three semesters. (In the academic biology course, the third semester is taught in English; this is also the case in geometry if there are few enough students to allow for individual attention.)

Academic-track courses are geared to the Citywide or Regents examinations; general-track courses are not. In view of this, some students may request to enter general-track classes; if the staff considers him/her capable of academic-track work, that request will not be fulfilled.

The content of math and science courses are the same as that of the mainstream and meet the requirements necessary for graduation. All subjects are taught in Spanish with the exceptions noted above. The textbooks materials are written in English; however, textbooks written in Spanish are available as resources for any student who needs them. A total of five teachers and three paraprofessionals are involved in the math component of the program; four teachers and no paraprofessionals teach science.

The content of the subjects within the social studies area is the same as previous years, with the addition of up-to-date information to provide students with an awareness of current history. Iran, Cuba, ABSCAM and other current topics are discussed either during class or through the reading portion of the ESL classes. Spanish texts are

used in some courses, and efforts have been made to acquire or develop texts geared to students' reading abilities. (See Curriculum Development.) In American History classes, an English textbook, accompanied by written summaries in Spanish, is the basis for coursework. The reason for this is that those Spanish texts on U.S. history which are appropriate for program students do not fully conform with New York State curriculum requirements.

Economics classes also use an English text. Students generally enroll in this course when they are taking 6TA, the most advanced level of ESL.

III. NON-INSTRUCTIONAL COMPONENT

Table IX provides an overview of the services involved in the non-instructional component of the bilingual program by funding source.

TABLE IX

Non-Instructional Services by Funding Source

Service	Funding Source(s)	Personnel Involved
Curriculum Development	Title VII	Teacher under direction of Project Director
Supportive Services	Title VII	College/Vocational Advisor
	PSEN	2 bilingual Deans 1 bilingual Grade Advisor
	201/202	2 bilingual Grade Advisors
	Tax levy	Head Grade Advisor 2 bilingual Grade Advisors
Staff Development	Title VII	Project Director Testing/Evaluation Coordinator, Teachers and Paras
	Tax levy	
Parental and Community Involvement	Title VII	Teacher under direction of Project Director
	Tax levy	Teacher under direction of Adult Education Coordinator

A. Curriculum and Materials Development

Title VII Materials. Throughout the seventies, the Title VII bilingual program at Brandeis has been instrumental in developing Spanish bilingual materials for use in language and content area instruction. It has generated materials which are currently being used by schools throughout New York City, as well as in cities and states across the country. All materials developed by the Title VII program are available for dissemination.

Program personnel have developed curriculum materials, and have adapted English language materials for use in social studies, science and mathematics classrooms. In 1979-80, program staff undertook or continued work on: a Spanish-language World Geography curriculum; an ESL placement test for incoming junior high school students, and an English Pre-Transition curriculum.

The curriculum coordinator stated that he has developed a curriculum in Latin American studies, but that for the most part he has been concentrating on the acquisition of suitable social studies materials. This is a difficult task not because of a scarcity of materials in Spanish, but because of a scarcity of materials in Spanish which are geared to the New York State curriculum and to various standardized examinations including the Citywide and Regents exams. Therefore, the staff has been working toward making English texts accessible to program students by providing summaries of material presented in English, or by coordinating use of English and Spanish texts which together meet State requirements.

Final examinations. During 1979-80, some attempt was made to revise the final exam system at Brandeis. During the fall, students took uniform

exams which were drafted by one or more teachers for each subject in the content areas. Students in the mainstream took these exams in English; program students took the same exams in translation.

In the Spring, uniform exams were technically done away with, and bilingual teachers were asked to write their own exams tailored to the work completed in each class. This was not actually done for the most part, since in practice teachers re-cycled exams from previous years. These were, therefore, translations of old uniform exams.

Title I and PSEN Materials. Materials developed by Title I and PSEN programs are used to prepare bilingual students for transition to work in the mainstream. These materials have been designed for English-speaking students who need to improve their mathematics and reading skills, and may not fully meet the needs of program students. (See recommendations.)

B. Supportive Services

Overview. The supportive services provided by the bilingual program staff are considered by students and parents to be a crucial aspect of the program's operation. The staff responsible for these services include: a head grade advisor, five grade advisors, a bilingual college/vocational advisor, and two deans (boys' and girls' deans). The grade advisors assist students with scheduling; they maintain and evaluate records and work with teachers to make decisions about mainstreaming. They assist students with personal and academic problems, intervene in crises, and make referrals to social service and other agencies when appropriate. The deans also are available for assistance with problems of various sorts, and deal with disciplinary problems.

In practice, students may approach any available member of the staff for assistance with personal difficulties. The acting assistant principal had been girls' dean for several years before teaching in and later administering the bilingual program. She is well known by students and parents, and therefore, has often been a natural choice for confidante.

Grade Advisors. The head grade advisor stated that program students during 1979-80 sought counseling related to a broad spectrum of issues, ranging from mild adjustment problems to serious difficulties--emotional or social. For example, a number of students who were victims of incest sought help at school, either from a grade advisor or from another staff member in whom they had confidence. Two students who were school phobics were allowed to spend time each day doing chores in the grade advisors' office; in these cases, the knowledge that they could come to that supportive environment helped them to get through the doors of the building. Some severe learning disorders were identified among students; those students were referred to specialists for evaluation for placement.

Some students were referred to several clinics operating on the West Side, including those affiliated with Roosevelt Hospital and Catholic Charities. Such referrals were made in cases where the grade advisor felt that short-term counseling was not sufficient, or in any case where the child's problems were seen as preventing school attendance, or whenever there was perceived to be a threat to the life of a student. (One program student attempted suicide in 1979-80 and was subsequently hospitalized).

The head grade advisor said that she and her colleagues try to devote as much time as possible to counseling students. To some extent their

efforts have been hampered by the need to devote considerable time to other tasks--the usual volume of record-keeping plus additional work necessitated by changes in administration and policy both within the school and program and within the Board of Education. She added that paperwork has left little time for some important activities which she had performed in the early years of program operation, such as orienting teachers and paraprofessionals to the various cultural contexts in which program students live and work and which condition their special resources and needs. She said that the efficient use of paraprofessionals' time is crucial for the work done by grade advisors.

During the first semester of the 1979-80 school year, grade advisors had excellent back-up from paraprofessionals. Three paraprofessionals worked in the grade advisors' office for two periods each day. They also would work when they were not needed in classes or elsewhere. During the period from November to January, 90 program students received counseling from grade advisors (from one or two sessions to more regular meetings).

During the second half of the year, a system of rotation by paraprofessionals was introduced; each day eight different paraprofessionals worked in the grade advisors' office for one period each. (See section on Staffing Pattern.) This system of rotation did not prove advantageous. The head advisor stressed the importance of an assignment system in which fewer paraprofessionals work more hours in each area, that is, a system allowing for greater specialization by the paraprofessional on the basis of interest and ability.

College/Vocational Advisor. Program students may avail themselves of the services of the bilingual college/vocational advisor, or of one of

the school's monolingual college/vocational advisors. Students often will address questions about applications or about simple procedural matters to any available advisor; by the eleventh grade, when most students begin to seek such advice, most program students are sufficently fluent in English to request and understand this sort of information. But it is the bilingual advisor who is sought out for answers to more subtle questions which may be evident to many American-born students, but which generally baffle program students: what are the differences among various kinds of educational institutions? what are admissions officers looking for in autobiographical statements or in interviews? how should one go about securing teacher recommendations? In addition, program students and parents need special help with financial aid applications. Some are reluctant to share their family's financial situation, which is often depressed. They are more likely to seek help with such forms from a bilingual college advisor.

While advice about college applications and entrance is available, program students often need more individualized attention than is currently provided. For example, a number of students have gotten as far as scheduling interviews at colleges (including some private institutions) but have not kept the appointments. The program staff has given serious attention to how additional help or support might be furnished. They also feel that a program of cultural enrichment would significantly help both collegebound students and those entering the job market to make a successful transition from Brandeis to a larger more heterogeneous social/cultural environment. (See recommendations.)

C. Staff Characteristics/Staff Development

Staff Characteristics. The bilingual program at Brandeis High School is staffed by licensed bilingual administrators and teachers. While the

four individuals supported by Title VII funds (project director, college/vocational advisor, testing/evaluation coordinator; secretary) hold exclusively administrative or advisory positions, several other members of the staff divide their time between the classroom and other functions. The head grade advisor also teaches ESL. The four other bilingual grade advisors, supported by Tax Levy, PSEN, and 201/202 funds, also teach ESL (2), as well as bilingual math, science, and social studies. The curriculum coordinator teaches bilingual social studies.

Staffing pattern. The staffing pattern for teachers and other administrative staff were altogether appropriate; teachers were all giving instruction in the areas for which they were licensed.

The assignment of paraprofessionals proved to be a more difficult problem in 1979-80. In general, paraprofessionals are assigned to classroom support or to other roles by the evaluation and testing coordinator, in consultation with the project director and assistant principal. This was the case in the first half of the year, and the system was quite workable.

In January, the acting assistant principal introduced a change to that system. Knowing that budget cuts were inevitable in the near future, she decided that it would be useful to work out a system of rotation, so that each paraprofessional could learn to perform any task that needed to be done. This would lend continuity to the program in case the paraprofessional staff were reduced.

The experiment did not work, the acting assistant principal said, largely because it was based on the assumption of equal or equivalent skills.

It also reduced, rather than provided, continuity and efficiency, since on any given day several people were performing the same task for short periods of time.

Staff Development Activities. Brandeis High School uses both tax levy and Title VII funds to provide its staff with important staff development services. The staff had opportunities for professional development and for improvement of the program both within and outside of the school. Table X provides a summary of staff development activities during 1970-1980.

TABLE X

Staff Development Activities

Activity	Participants	Description
University Courses	Teachers 5 Paras 7	Courses in Administration, Supervision, Guidance Evaluation, Human Relations, History, Reading, and Sociology taken at Hunter College and New York University
Monthly Meetings	All staff Assistant Principal	Discussion of program needs, techniques of classroom management, administrative procedures, lesson planning
Workshops	Content area teachers working in committees	Curriculum development, review of materials, process evaluation of materials
Conferences	Project Director	Title VII Management Conference NABE Conference

D. Parental and Community Involvement

Parents participated in the bilingual program mainly by attending the tax levy ESL workshops arranged for them. These workshops provide parents not only with training in English language skills, but also with an opportunity to socialize with each other, to get to know the program staff, and to speak about the program. A meeting with parents at one of these workshops provided the following information.

For the most part, parents believe that the academic program provided for bilingual students at Brandeis is effective. They receive information about the program through teachers' notes, program letters and announcements, and telephone calls from members of the program staff.

Some parents stated that they tend to stay away from the school and are reluctant to visit classrooms because their children do not appreciate parents' presence at school. There was consensus among parents that high school students in general do not welcome parental participation, and that the students' feelings must be respected. One parent commented that, "I know when my son is not doing well; the teacher lets me know." Other parents agreed, and added that in such cases a personal visit to the school was not necessary. They apparently felt that it is important for parents to be present at the school only when there is a serious or crisis situation at hand, but not in the normal course of events.

Parents at this meeting also verbalized their desire for ESL workshops structured according to various levels of skills, perhaps beginning, intermediate, and advanced. They also suggested that the workshops take place three, rather than two, times each week.

A total of 12 parents participate in the ESL workshops; there is also a Parents' Advisory committee which meets four times a year in order to review the program and offer suggestions for changes. This committee in 1979-80 consisted of 12 parents who were invited to participate.

A clear area of parents' concern is summer employment for their children. Parents feel that the school and program staff should be exploring ways to help youngsters secure employment during the months when they are not in school.

As a result of efforts to increase home-school contact, parents of bilingual program students have participated in a number of activities together with parents of mainstream students. These include:

--Open School Week: four times a year parents are invited to visit the school and discuss their children's programs with the staff.

--P.T.A. general meetings: attendance at these monthly meetings by Hispanic parents is limited to a few male parents.

--Junior High School Orientation Assembly: this event provides an introduction to the school and gives parents the opportunity to get acquainted with the staff and facilities.

--Pan-Hellenic Conference: at this time parents get together and learn about other cultures.

--Hispanic World's Fair: this is an opportunity for Hispanic parents to act as hosts to mainstream students' parents. Music, food and friendship are exchanged.

--Puerto Rico Discovery Day and Dominican Republic Independence Day: parents participate in decorating bulletin boards and classes for these occasions.

IV. AFFECTIVE DOMAIN

Program students' generally positive view of themselves and of their school experience is reflected in the high level of attendance by participants in the bilingual program, as well as by a number of other indicators.

The students have performed at high levels both in the school and after graduation. Of the 129 awards presented to students at the June 1979 commencement exercises, 25 (19%) went to bilingual students. Fully 35% of students elected to Arista, the National Honor Society, were from the bilingual program. And as in the previous year, 58% of the graduating class' top 50 students (according to the ranking established by the University Application Processing Center) were bilingual program students.

Scores on standardized examinations also suggest significant achievement. The following table indicates the number of program students who passed Regents and Citywide exams in various subjects:

TABLE XI

Number of Bilingual Program Students Passing Standardized Exams, June 1979

	Regents	Citywide
English	7	109
9th Grade Math	13	62
10th Grade Math	--	34
11th Grand Math	6	1
History	29	110
Biology	30	49
Language	78	33
BCT	118	118

A summary of post-graduation plans suggests not only high achievement, but also program students' confidence in their ability to achieve in the future. Of the 123 bilingual students in the Class of 1979, 74% received diplomas; this percentage matches that of the graduating class as a whole. Of the 90 program students who graduated, 85% had been accepted by and were planning to enter college--either in the New York City University system, or in other institutions. (That percentage exceeded the 79% of the graduating class as a whole who were college-bound). Of the 90 graduating students 50% were entering four-year institutions, 30% were entering two-year colleges, and 5% were enrolling in vocational or technical institutes. Another 5% were enlisting in the Armed Forces, and 6% had secured employment. Only 4% reported no definite plans.

An interview with eleven students who had been enrolled in the bilingual program and had made the transition to mainstream classes suggested several factors which they consider critical to their success.

Each of these students had spent from one-and-a-half to two years in the program, and had enrolled speaking little or no English. They felt that their success in school was attributable first to their own motivation and ability to concentrate (despite living situations which often precluded privacy or quiet for study), and also their teachers' strong commitment to helping students. They reported a comfortable sense of always knowing that someone in the program would be available to talk to or to offer advice. They stated that the accessibility of the bilingual grade advisors and of the college/vocational advisor, and the open door at the bilingual office, created a support system that had helped them to make it through high school.

Students also mentioned that the structured set of rules established by the program and the school as a whole had helped them. They felt that Brandeis had an outstanding reputation, and were proud to be part of the school. Some said they had chosen Brandeis despite the subway or bus ride involved in getting there, because of its prestige and the high quality of education it offers. They recognized the incentive to live up to Brandeis' reputation as an incentive to achieve.

Another factor for success mentioned by the students was the excellent array of services and facilities at the school--the library, labs, audio-visual aids, career guidance. They said that they could speak to almost anyone because "we know they care".

In 1979-80, a total of 5 bilingual students were discharged from the school, a small number when compared with the many success stories of that year. Vandalism by program students, as by the school's student body as a whole, has been minimal. The dean of boys estimated that only a handful of program students--perhaps 20--persistently present disciplinary problems. Of these, two were twice suspended during the most recent term. Most disciplinary problems have been relatively minor, including cutting classes, tardiness, or speaking without being called upon in class.

V. FINDINGS

Assessment Procedures and Findings. The following section presents the assessment instruments and procedures, and the results of the testing.

Assessment Procedures and Instruments. Students were assessed in English language development, growth in their mastery of their native language, mathematics, social studies and science. The following are the areas assessed and the instruments used:

English as a Second Language	--	Criterion Referenced English Syntax Test (CREST), Levels, I,II,III
English Language Fluency	--	New York Fluency Scale Expressive and Receptive
Reading in Spanish	--	CIA Prueba de Lectura, Level III
Mathematics Performance	--	Teacher-made Tests
Science Performance	--	Teacher-made Tests
Social Studies Performance	--	Teacher-made Tests
Native Language Arts Performance	--	Teacher-made Tests
Attendance	--	School and Program Records

The following analyses were performed:

A) On pre/post standardized tests of Native Language Reading Achievement statistical and educational significance are reported:

1) Statistical Significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant.

This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

2) Educational Significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.[1]

An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the following effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

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[1] Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977 Chapter 2.

A difference of 1/5 = .20 = small ES

A difference of 1/2 = .50 = medium ES

A difference of 4/5 = .80 = large ES

B) On the Criterion Referenced English Syntax Test (CREST) information is provided on the number of objectives attempted and mastered, the percentage of objectives mastered versus those attempted, and the number of objectives mastered per month of treatment. Information is also provided on student performance on the various test levels.

C) For the New York City Oral Language Ability Rating Scale, the total number and percent of students improving at least one scale level regardless of pre-test rating is compared to the criterion set by the program which stipulated that 60% of the students will demonstrate growth of one level or more. In addition, it was predicted that 40% of the students who were rated at the E or F level will advance at least one or more levels.

D) The results of the criterion referenced tests in mathematics, social studies, science, and native language arts are reported in terms of the number and percent of students achieving the criterion levels set for the participants (65% passing) broken down by instruction level (Academic or General).

E) Information is provided on the attendance rate of students participating in the bilingual program compared with that of the total school population.

The following pages present student achievement in tabular form.

TABLE XII

English as a Second Language

Fall

Results of the Criterion Referenced English Syntax Test (CREST) Reporting the Number of Objectives Mastered, Percent Mastered, and Objectives Mastered Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Months of Treatment	Objectives Mastered Per Month
9	173	10.5	4.8	46%	3.0	1.6
10	222	8.7	5.0	57%	3.1	1.6
11	121	6.9	3.9	56%	3.0	1.3
12	7	6.0	3.1	52%	3.2	1.0
Totals	523	8.8	4.7	53%	3.0	1.5

In Fall, the average number of objectives attempted across all levels of the CREST ranged from 6 in grade 12 to 11 in grade 9 while the average number of objectives mastered ranged from 3 in grade 12 to 5 in grade 10. The number of objectives mastered per month of instruction was greater than 1 at each grade level.

TABLE XIII

English as a Second Language

Fall

Student Performance on the Criterion Referenced English Syntax Test (CREST) A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	173	1329	614	46%	467	210	45%	16	9	56%
10	222	784	428	55%	1039	627	60%	111	55	50%
11	121	152	84	55%	357	224	63%	325	159	49%
12	7	-	-	-	29	16	55%	13	6	46%
Totals	523	2265	1126	50%	1892	1077	57%	465	229	49%

The Fall semester results for the CREST show that a strong relationship exists between the level on which students performed and grade level with the lower grade level working primarily at the lower levels and upper grade level performing at the upper level. On the whole, students tended to master greater than 50% of the English syntax objectives they attempted.

TABLE XIV

English as a Second Language

Spring

Results of the Criterion Referenced English Syntax Test (CREST) Reporting the Number of Objectives Mastered, Percent Mastered, and Objectives Mastered Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Months of Treatment	Objectives Mastered Per Month
9	159	10.1	4.9	49%	3.1	1.6
10	166	8.1	4.7	58%	2.9	1.6
11	91	6.3	3.1	50%	3.1	1.0
12	1	16.0	15.0	94%	3.4	4.4
Totals	417	8.5	4.5	53%	3.0	1.5

The average number of objectives attempted across all levels of the CREST in Spring ranged from 6 in grade 11 to 16 objectives for one twelfth grader. The average number of mastered objectives ranged from 3 in grade 11 to 15 for the twelfth grade student. The average number of objectives mastered per month of instruction was greater than one at all grade levels. No substantial differences are evident when Fall and Spring total test level performance is compared.

TABLE XV

English as a Second Language

Spring

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	159	1053	499	47%	504	256	51%	53	24	45%
10	166	380	211	56%	627	341	54%	335	229	68%
11	91	75	42	56%	231	116	50%	264	127	48%
12	1	-	-	-	16	15	94%	-	-	-
Totals	417	1508	752	50%	1378	728	53%	652	380	58%

The Spring grade by test level crosstabulation shows that while students in lower grades performed at lower test levels, and upper grade students performed at the higher levels, the percentage of objectives mastered was consistent by greater than 50%. No real performance differences exist when comparing Fall and Spring grade by test level achievement rates.

TABLE XVII

Oral Language Ability

Number and Percentages of Students Advancing
One Level or More on the Expressive and Receptive Modes
Regardless of Pre-Test Rating on the
Oral Language Ability Rating Scale, By Grade
(720 Designated Students)

Grade	Expressive Domain			Receptive Domain		
	N	Students Advancing One Level	%	N	Students Advancing One Level	%
9	98	52	53%	98	57	58%
10	81	33	41%	81	36	44%
11	19	6	32%	19	6	32%

In Fall, the percentage of 720 designated students advancing at least one level in the expressive domain ranged from 32% in grade 11 to 53% among 9th grade students. In the receptive domain, the percentage of students advancing one level ranged from 32% in grade 11 to 58% in grade 9.

In view of the stated evaluation objective that at least 40% of students will advance one or more levels, regardless of pre-test rating, students in grade 11 failed to meet this objective.

Interpretation of these data should be conditioned, however, by the fact that the initial rating of the students is not reflected in these data. Examination of the Rating Scale itself (Appendix A) reveals that the rates of expected progress from one level to another are not symmetrical. It may be expected that students who speak little or no English (levels E or F) will progress one scale level within a year of instruction, but that students functioning at a relatively high level (level B, for example) may not reach a higher level in one year. These levels represent degrees of fluency approaching or equalling that of a native speaker of English. It is unreasonable and unrealistic to expect rates of student progress at these levels similar to those of beginning students of E.S.L. Level A, for example, is unlikely to be achieved by students who have not had extensive exposure to oral and written English. Those who learn English as adults may never achieve it. Level B is also likely to require years of exposure to English.

It is suggested, therefore, that student outcomes be analyzed in terms of the initial fluency rating of each student, and that the criteria for mastery reflect reasonable expectation for student growth at each level.

TABLE XVIII

Oral Language Ability

Number and Percentages of Students Advancing
One Level or More on the Expressive and Receptive Modes
Who Were Rated E or F on Pre-Test on the
Oral Language Ability Rating Scale, By Grade
(Non 720 Designated Students)

Grade	Expressive Domain			Receptive Domain		
	N	Students Advancing One Level	%	N	Students Advancing One Level	%
9	47	26	55%	42	28	67%
10	28	22	79%	12	11	92%
11	16	14	75%	11	8	73%

In the expressive mode, the percentage of students gaining one scale rating ranged from 55% at the 9th grade to 79% at the 10th grade. In the receptive mode, the percentage of students gaining one scale rating ranged from 67% at the 9th grade to 92% at the 10th grade.

In view of the stated evaluation objective that at least 60% of the students who were rated E or F on pre-test will gain at least one scale rating, the above table indicates that this objective was achieved in two grades in the expressive mode and in all grades in the receptive mode.

Interpretation of these data should be conditioned, however, by the fact that the initial rating of the students is not reflected in these data. Examination of the Rating Scale itself (Appendix A) reveals that the rates of expected progress from one level to another are not symmetrical. It may be expected that students who speak little or no English (levels E or F) will progress one scale level within a year of instruction, but that students functioning at a relatively high level (level B, for example) may not reach a higher level in one year. These levels represent degrees of fluency approaching or equalling that of a native speaker of English. It is unreasonable and unrealistic to expect rates of student progress at these levels similar to those of beginning students of E.S.L. Level A, for example, is unlikely to be achieved by students who have not had extensive exposure to oral and written English. Those who learn English as adults may never achieve it. Level B is also likely to require years of exposure to English.

It is suggested, therefore, that student outcomes be analyzed in terms of the initial fluency rating of each student, and that the criteria for mastery reflect reasonable expectation for student growth at each level.

TABLE XIX

Oral Language Ability

Number and Percentages of Students Advancing One Level or More on the Expressive and Receptive Modes Who Were Rated E or F on Pre-Test on the Oral Language Ability Rating Scale, By Grade (720 Designated Students)

Grade	Expressive Domain			Receptive Domain		
	N	Students Advancing One Level	%	N	Students Advancing One Level	%
9	67	45	68%	58	45	78%
10	42	25	60%	37	26	70%
11	7	5	71%	6	5	83%

In the expressive mode, the percentage of students gaining one scale rating ranged from 60% at the 10th grade to 71% at the 11th grade. In the receptive mode, the percentage of students gaining one scale rating ranged from 70% at the 10th grade to 83% at the 11th grade.

In view of the stated evaluation objective that at least 60% of the students who were rated E or F on pre-test will gain at least one scale rating, the above table indicates that this objective was achieved in all grades in the expressive mode and in the receptive mode.

Interpretation of these data should be conditioned, however, by the fact that the initial rating of the students is not reflected in these data. Examination of the Rating Scale itself (Appendix A) reveals that the rates of expected progress from one level to another are not symmetrical. It may be expected that students who speak little or no English (levels E or F) will progress one scale level within a year of instruction, but that students functioning at a relatively high level (level B, for example) may not reach a higher level in one year. These levels represent degrees of fluency approaching or equalling that of a native speaker of English. It is unreasonable and unrealistic to expect rates of student progress at these levels similar to those of beginning students of E.S.L. Level A, for example, is unlikely to be achieved by students who have not had extensive exposure to oral and written English. Those who learn English as adults may never achieve it. Level B is also likely to require years of exposure to English.

It is suggested, therefore, that student outcomes be analyzed in terms of the initial fluency rating of each student, and that the criteria for mastery reflect reasonable expectation for student growth at each level.

TABLE XX

Native Language Reading Achievement

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in Native Language Reading Achievement of Students with Full Instructional Treatment on the CIA Prueba de Lectura, Level III

		Pre-Test		Post-Test						
Grade	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Corr. Pre-Post	t	p	ES
9	168	57.0	25.3	62.1	23.0	5.1	.67	3.32	.001	.28
10	204	71.8	22.8	75.7	22.4	3.9	.81	4.04	.001	.28
11	136	78.9	23.0	82.6	20.2	3.7	.71	2.61	.01	.22
12	26	91.2	14.4	88.6	15.0	-2.4	.79	-1.39	NS	--

Table XX presents native language reading achievement data for Spanish speaking students on the CIA Prueba de Lectura, Level III. Students in grades 9, 10, 11 showed raw score gains while 12th grade students showed a decline of 2.4 raw score points. The gain for students in grades 9 and 10 were statistically significant at the .001 significance level, while gains for 11th grade students were significant beyond the .01 level of significance. Students in grade 12 did not make gains that reached statistical significance at the .05 probability level. The gains for students in grades 9, 10, and 11, when expressed in standard deviation units were judged to be of small educational significance.

TABLE XXI

Mathematics Performance

Number and Percent of Students Passing Teacher-Made Examinations in Mathematics

(Academic Level Courses)

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
Algebra I	70	47	67%	82	51	62%
Algebra II	61	45	74%	40	23	58%
Algebra III	43	16	37%	84	52	62%
Transitional Math	61	42	69%	47	31	66%
Geometry I	10	8	80%	25	20	80%
Geometry II	16	12	75%	35	29	83%
Geometry III	16	4	25%	-	NO DATA	-
Totals	277	174	63%	313	206	66%

In the Fall term, the percentage of students passing teacher-made examinations in academic level mathematics ranged from 25% in Geometry III to 80% in Geometry I. In Spring, the percent mastering the curriculum ranged from 58% in Algebra II to 80% in Geometry I.

The stated evaluation objective for academic level mathematics was met in eight of the thirteen classes offered. Students taking Algebra I (Spring), Algebra II (Spring), Algebra III (Fall & Spring), Geometry III (Fall) failed to reach the criterion level of a 65% pass rate.

TABLE XXII

Mathematics Performance

Number and Percent of Students Passing Teacher-Made Examinations in Mathematics

(General Level Courses)

Course	FALL 1979 N	FALL 1979 Number Passing	FALL 1979 Percent Passing	SPRING 1980 N	SPRING 1980 Number Passing	SPRING 1980 Percent Passing
General Math I	123	74	60%	94	44	47%
General Math II	84	48	57%	102	48	47%
General Math III	50	33	66%	37	24	65%
Remedial Math I	15	10	67%	--	NO DATA	--
Remedial Math II	51	38	75%	40	26	65%
Totals	323	203	63%	273	142	52%

In the Fall term, the percentage of students passing teacher-made examinations in general level mathematics ranged from 57% in General Math II to 75% in Remedial Math II. In Spring, the percent mastering the curriculum ranged from 47% in General Math I and II to 65% in General Math III and Remedial Math II.

The stated evaluation objective for general level mathematics was met in five out of the nine courses offered. Students taking General Math I and II (in both Fall and Spring) failed to reach the criterion level of a 65% pass rate.

TABLE XXIII

Science Performance

Number and Percent of Students Passing Teacher-Made Examinations in Science

(Academic Level Courses)

Course	FALL 1979 N	FALL 1979 Number Passing	FALL 1979 Percent Passing	SPRING 1980 N	SPRING 1980 Number Passing	SPRING 1980 Percent Passing
Biology I	64	41	64%	49	36	73%
Biology II	28	21	75%	69	44	64%
General Science I	63	43	68%	61	44	72%
General Science II	96	73	76%	73	34	47%
Totals	251	178	71%	252	158	63%

In the Fall term, the percentage of students passing teacher-made examinations in academic level science ranged from 64% in Biology I to 76% in General Science II. In Spring the percent mastering the curriculum ranged from 47% in General Science II to 73% in Biology I.

The stated evaluation objective for academic level science was met in five of the eight classes offered. Students taking Biology I (Fall), Biology II (Spring) and General Science II (Spring) failed to reach the criterion level of a 65% pass rate; However, the criterion level was missed by only 1 percentage point.

TABLE XXIV

Science Performance

Number and Percent of Students Passing Teacher-Made Examinations in Science

(General Level Courses)

Course	FALL 1979 N	FALL 1979 Number Passing	FALL 1979 Percent Passing	SPRING 1980 N	SPRING 1980 Number Passing	SPRING 1980 Percent Passing
Biology I	36	22	61%	55	34	62%
Biology II	35	27	77%	35	23	66%
General Science II	26	13	50%	73	34	47%
Totals	97	62	64%	163	91	56%

In the Fall term, the percentage of students passing teacher-made examinations in general level science ranged from 50% in General Science II to 77% in Biology II. In Spring, the percent mastering the curriculum ranged from 47% in General Science II to 66% in Biology II.

The stated evaluated objective for general level science was met in only two of the six classes offered. Students taking Biology I and General Science II (both in Fall and Spring) failed to reach the criterion level of a 65% pass rate.

TABLE XXV

Social Studies Performance

Number and Percent of Students Passing Teacher-Made Examinations in Social Studies

(Academic Level Courses)

Course	FALL 1979 N	FALL 1979 Number Passing	FALL 1979 Percent Passing	SPRING 1980 N	SPRING 1980 Number Passing	SPRING 1980 Percent Passing
American History I	100	68	68%	59	23	39%
World History I	39	30	77%	69	40	58%
World History II	36	26	72%	57	53	93%
World Geography I	92	61	66%	43	36	84%
Economics	8	6	75%	47	33	70%
Totals	275	191	69%	275	185	67%

In the Fall term, the percentage of students passing teacher-made examinations in academic level social studies ranged from 66% in World Geography I to 77% in World History I. In Spring, the percent mastering the curriculum ranged from 39% in American History I to 93% in World History II.

The stated evaluation objective for academic level social studies was met in eight of the ten classes offered. Students taking American History I and World History I in Spring failed to reach the criterion level of a 65% pass rate.

TABLE XXVI

Social Studies Performance

Number and Percent of Students Passing Teacher-Made Examinations in Social Studies

(General Level Courses)

Course	FALL 1979 N	Number Passing	Percent Passing	SPRING 1980 N	Number Passing	Percent Passing
American History I	39	26	67%	36	21	58%
World History I	23	16	70%	52	30	58%
World History II	11	5	45%	15	9	60%
World Geography I	39	14	36%	14	11	79%
Economics	12	10	83%	28	16	57%
Totals	124	71	57%	145	87	60%

In the Fall term, the percentage of students passing teacher-made examinations in general level social studies ranged from 36% in World Geography I to 83% in Economics. In Spring, the percent mastering the curriculum ranged from 57% in Economics to 79% in World Geography I.

The stated evaluation objective for general level social studies was met in only four of the ten classes offered. Students taking American History I (Spring), World History I (Spring), World History II (Fall and Spring), World Geography I (Fall) and Economics (Spring) failed to reach the criterion level of a 65% pass rate.

TABLE XXVII

Native Language Arts Performance

Number and Percent of Students Passing Teacher-Made Examinations in Native Language Arts

(Academic Level Courses)

Course	FALL 1979 N	Number Passing	Percent Passing	SPRING 1980 N	Number Passing	Percent Passing
Spanish Level II	108	90	83%	47	41	87%
Spanish Level III	1	1	100%	14	13	93%
Spanish Advanced	5	5	100%	5	5	100%
Spanish Literature General	19	19	100%	30	29	97%
Spanish Literature Intensive	5	4	80%	25	25	100%

In the Fall term, the percentage of students passing teacher-made examinations in academic level native language arts ranged from 80% in Intensive Spanish Literature to 100% in other courses. In Spring, the percent mastering the curriculum ranged from 87% in Spanish Level II to 100% in Advanced Spanish and Intensive Spanish Literature.

Overall, the stated evaluation objective for academic level native language arts was met and substantially surpassed in all courses.

TABLE XXVIII

Native Language Arts Performance

Number and Percent of Students Passing Teacher-Made Examinations in Native Language Arts

(General Level Courses)

Course	FALL 1979 N	FALL 1979 Number Passing	FALL 1979 Percent Passing	SPRING 1980 N	SPRING 1980 Number Passing	SPRING 1980 Percent Passing
Native Language Arts	10	8	80%	7	4	57%
Spanish I	116	89	77%	48	42	88%
Spanish II	131	94	72%	29	21	72%

In the Fall term, the percentage of students passing teacher-made examinations in general level native language arts ranged from 72% in Spanish II to 80% in Native Language Arts. In Spring, the percent mastering the curriculum ranged from 57% in Native Language Arts to 88% in Spanish I.

The stated evaluation objective for general level native language arts was met in five of the six classes offered. Only students taking Native Language Arts (Spring) failed to reach the criterion level of a 65% pass rate.

TABLE XXIX

Attendance Rates

Number and Percent of Students Surpassing the General School Attendance Rate, Reporting the Program Attendance Rate and Standard Deviation

Grade	Number of Students	Average Attendance	Standard Deviation	Number Surpassing Rate	Percent Exceeding Rate
9	227	89.0%	11.7	197	87%
10	269	88.1%	12.7	223	83%
11	157	89.5%	12.0	138	88%
12	50	92.5%	8.3	46	92%

Attendance rates ranged from 88% in grade 10 to 93% in grade 12. The percentage of students surpassing the average school-wide attendance rate ranged from 83% in the 10th grade to 92% in grade 12.

Thus students at all grade levels met and substantially surpassed the stated evaluation objective with regard to student attendance.

VI. CONCLUSIONS AND RECOMMENDATIONS

The bilingual program at Brandeis High School maintained in 1979-80 the superlative level of achievement which has characterized the program since its inception in 1972. It has operated effectively despite a disruptive series of personnel shifts which began in 1977, and despite the fact that administrative stability has yet to be achieved. The relatively smooth function of the program despite changes in key positions reflects the determination of staff members to coordinate efforts, and to transform a difficult situation into a positive experience.

During the year staff and students made strides in various areas which have been detailed in this report. One important area achievement which has yet to be mentioned is the refinement of data collection. Working with the acting assistant principal and the project director, the evaluation and testing coordinator continued in 1979-80 her effort, initiated the previous year, to elaborate a coding system which would generate more meaningful data. This system records students' results (grades or test outcomes) by course rather than by content area. In view of the program's range of offerings (particularly the general and academic tracks offered for various subjects), this system of record-keeping more fully reflects the instructional component.

The staff has adhered to the principle that it is in the students' and the program's best interests to demand mastery of instructional material, and to pass only those students who have in fact achieved a substantial and demonstrable degree of mastery in a given subject. They have found that participants' self-esteem is better reinforced by adhering to that standard than by passing students who have not achieved, even if those students have

shown effort or have regularly attended class. Data supplied for the number and percentage of students receiving passing grades in each course should be evaluated in the context of this policy.

Recommendations

1. There was in 1979-80 a clear disparity between the number of students which the program is mandated to serve and the number who actually needed and received services. Some means should be found to reconcile these figures.

2. Crucial to continued efficency in program function is the establishment of administrative stability. The program has been operating since 1977 under the direction of an acting assistant principal. A permanent appointment to this position must be made at the earliest possible date.

3. The program has to date made significant strides in serving students whose skills in Spanish and English are minimal and who require remedial work. This appears to be an appropriate time to focus on the needs of students who achieve within the program, but whose needs are nevertheless not fully met. A program of cultural enhancement, familiarizing bilingual students with cultural phenomena and resources which are not presently in their home or school experience, would benefit these students in several ways:

- It would make the transition into mainstream classes less traumatic by broadening the ground shared by bilingual and American-born students.

- It would instill in students the confidence to reach beyond their homes, their neighborhoods, and even beyond the city limits, in setting post-graduation goals for themselves. (Young women who leave the program particularly need this encouragement, since they

tend to be restricted in their vision by protective relatives). Familiarity with a larger cultural context would help students not only seek admission to more challenging colleges (public and private) or employment, but also to cross the cultural barrier which isolates bilingual students once they enter those spheres.

-A cultural program would also help to cultivate special talents possessed by program students whose limited proficiency in English or whose late arrival in the U.S. precluded acceptance by the City's specialized high schools (which generally begin testing or auditioning applicants in the eighth grade). Brandeis' present offerings in the arts, for example, consist of one art course and one music course. Students with special abilities in these areas have little opportunity to demonstrate or develop those gifts.

4. Program staff should review certain aspects of curriculum and materials development to determine whether greater attention should be directed at final examinations and/or materials used by program students who are preparing to enter the mainstream. Many of the final exams presently used are recycled versions of translated uniform exams, and may not correspond fully with the curriculum in each area as it is now being implemented. The materials which presently prepare students for entry into mainstream content area courses are geared to English-dominant students who require remedial work, and may be more suitable for them than for program students.

5. Career and vocational guidance is presently provided by a single bilingual college/vocational advisor (working with monolingual advisors) who serves the entire program population of 700 students. Additional

support is needed to alleviate the work load of the college/vocational advisor and the grade advisors.

6. The assignment of paraprofessionals to various functions within the program should allow individuals to devote more hours to fewer tasks, and in effect to specialize more narrowly.

7. The tax-levy ESL workshops for parents mights be expanded, as parents have suggested, and might be offered at various levels. While the enrollment in the current workshop might seem too limited to warrant such a breakdown, more parents might be willing to participate if they were confident that they would be interacting with other adults who have a similar level of proficiency in English.

8. The entire program staff should be commended for the sensitive and effective delivery of services to their students in both the program's instructional and non-instructional components. The achievements made by the program and its participants in 1979-80 reflect the dedication of individual staff members, and the supportive working relationships which exist among them.

VII. APPENDIX

APPENDIX A

Rating Oral Language Ability

Oral Language Ability Rating Scale, New York City

Scale for Rating Pupil's Ability to Speak English

Enter for each pupil the letter A, B, C, D, E, F corresponding to his estimated ability to speak English in the classroom, defined as follows:

A -- Speaks English, for his age level, like a native - with no foreign accent or hesitancy due to interference of a foreign language.

B -- Speaks English with a foreign accent, but otherwise approximates the fluency of a native speaker of like age level. Does not hesitate because he must search for English words and language forms.

C -- Can speak English well enough for most situations met by typical native pupils of like age, but still must make a conscious effort to avoid the language forms of some foreign language. Depends, in part, upon translation of words and expressions from the foreign language into English, and therefore speaks hesitantly upon occasion.

D -- Speaks English in more than a few stereotyped situations but speaks it haltingly at all times.

E -- Speaks English only in those stereotyped situations for which he has learned a few useful words and expressions.

F -- Speaks no English.

The expected outcomes listed for each grade in this handbook can serve as a guide for evaluating achievement and relating them to the above scale. This is particularly significant for the C, B, and A designations that use as a comparison typical native pupils of like age.